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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/689,253  
Filing Date: October 20, 2003  
Appellant(s): JUENGER, RANDALL E.

\_\_\_\_\_  
Robert W. Holland (40,020)  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 12/20/2007 appealing from the Office action mailed 9/14/2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

The amendment after final rejection filed on 10/10/2007 has not been entered.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,606,678	Nakamura	8-2003
7,123,212	Acahrya et al.	10-2006

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6,584,561	Merkin et al.	6-2003
2002/0036694	Merril	3-2002
6,311,263	Barlow et al.	10-2001

Digital Tigers. "SideCar PlusTwo Pro." Specification sheet. (Sept 3, 2003)

Digital Tigers. SideCar PlusFour Pro. Installation and User Guide rev. 1.2. (Nov 25, 2003)

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The Examiner wishes to point out that the following rejection has been clarified to help better point out the correspondences between the claimed invention and the applied prior art.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 – 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Digital Tigers SideCar PlusTwo Pro Specification sheet (hereafter referred to as DT2) in view of Acharya et al. (U.S. 7,123,212), with evidence provided by Digital Tigers SideCar PlusFour Pro Installation and User Guide (hereafter referred to as DT4) and in view of was old and well known in the art.

Examiner notes that the publishing date of the DT4 reference does not meet 35 USC 102 requirements, however, DT2 does. DT4 is cited for providing more detailed information about the DT2 product. Since both describe the same product(s), the entire DT4 disclosure of the “SideCar PlusTwo Pro” product is presumed to be inherent in the DT2 reference.

Regarding claim 1, DT2 teach (using the DT4 “Installation and User Guide”) an information handling system comprising:

A housing (p. 3, see notebook computer housing);

Processing components disposed in the housing and operable to generate display information. Examiner takes Official Notice that it is old and well known in this art for notebook computers to have processing components which are disposed in the housing and operable to generate display information. Therefore, it would have been obvious to one of ordinary skill in the art to house the processing components of the notebook computer within the notebook computer housing, since to do so is routine in this art;

A graphics component interfaced with the processing components and operable to output the display information as a DVO signal. Examiner takes Official Notice that it is old and well known in this art for a notebook computer as disclosed to output display information, particularly as a DVO signal, since DVO signals provide a higher quality display (see p. 13 for evidence, Digital DVI). Therefore, it would have been obvious to one of ordinary skill in the art to utilize output display information on the notebook computer, since to do so is routine in this art;

A selector interfaced with the graphics component to receive the DVO signal having first and second selectable outputs (Examiner notes that the software allows the outputs to be selected for use; p. 43, see 4<sup>th</sup> and 5<sup>th</sup> bulleted paragraphs – “Checkbox: “Use this device as the primary monitor“; pages 95 – 97; Also on p. 43, see “Checkbox: “Extend my Windows desktop: activates or deactivates a monitor””; The Examiner notes that activating/deactivating a monitor corresponds directly to selecting/deselecting a graphics output, through the Windows software controls).

A first DVI connector operable to provide the DVI output at the housing to an external display (p. 3, Notebook external monitor cable). While the reference only teaches a **cable**, the Examiner takes Official Notice that it is well known for a notebook computer to have a DVI connector which attaches to the monitor cable for the purpose of providing a means of connecting the two. Therefore, it would have been obvious to one of ordinary skill in the art to utilize a DVI connector for the purpose of connecting a notebook computer to a cable, since to do so is routine in this art;

A docking connector operable to provide the DVI output at the housing to a docking station (where the docking connector corresponds to a PC card connector; p. 16. It can be called a docking connector, because it provides a connection to a docking station, namely the SideCar PlusTwo unit shown in the bottom figure on page 3).

DT2 fails to teach a first and second TMDS transmitter. For purposes of examination, the Examiner has interpreted the “multiplexer output” as claimed on line 9 of claim 1, as well as the “selector output” on line 13 of claim 1 to mean the same.

Acharya et al. teach that TMDS transmission is well-known for use with flat panel displays, and allows fewer wires to be used for image data lower power consumption, better protection against EMI, and higher transmission speeds (col. 12, line 59 – col. 13, line 5).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by Applicant to incorporate the TMDS transmitters of Acharya et al. into the system of DT2 for the purpose of providing image data with fewer wires, lower power consumption, better protection against EMI, and higher transmission speeds. This would have been obvious to improve performance and make the system more reliable.

Thus, all of the elements of claim 1 are taught by the combination of references, or obvious in view of what was old and well known in the art.

Regarding claim 2, DT2 teach (using the DT4 User Guide) the additional limitation of a docking station operable to couple to the housing and to accept the

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docking connector (where a docking station is interpreted as the combination of the Notebook/Sidecar PC Card interface cable and the SideCar PlusTwo unit; p. 3; Also see the figure on page 17 which shows the SideCar unit);

A second DVI connector interfaced with the docking connector (p. 3, SideCar monitor cables) and operable to provide the DVI output at the docking station to an external display (p. 3, where the external display is monitor #3). Examiner notes that the display port is provided with a second DVI connector for use with supplied mating cables (See DT2, page 2, section "Display ports/adapters").

Regarding claim 3, DT2 teach (using the DT4 User Guide) the additional limitation comprising:

A docking station detector operable to determine inserting of the information handling system into the docking station (p. 24 – 28; see in particular on page 24, "Windows will detect one or more devices called a "PCI to PCI bridge"... "PCI bridges are part of the logical connection between your notebook and the SideCar.");

A switch interfaced with the docking station detector and the selector and operable to select the first TMDS transmitter if the housing is not coupled to the docking station and to select the second TMDS transmitter if the housing is coupled to the docking station (Examiner notes that the software allows the outputs to be selected for use; p. 43, see "Checkbox: "Extend my Windows desktop...""; This means would appear to allow any monitor coupled externally to the notebook computer to be selected



and de-selected, whether or not the housing is coupled to the SideCar (docking station)).

Regarding claim 8, DT2 teach (using the DT4 User Guide) the additional limitation comprising a display monitor operable to interface with the second DVI connector to present the display information when the housing is coupled to the docking station (p. 3, see monitor #3).

\* \* \*

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Digital Tigers SideCar PlusTwo Pro Specification sheet (hereafter referred to as DT2) in view of Acharya et al. (U.S. 7,123,212), with evidence provided by Digital Tigers SideCar PlusFour Pro Installation and User Guide (hereafter referred to as DT4) and Barlow et al. (U.S. 6,311,263) and what was old and well known in the art.

Regarding claim 4, DT2 fails to explicitly teach wherein the selector and the first and second TMDS transmitters are fabricated as an application specific integrated circuit. Examiner takes Official Notice that it is old and well known in this art to use an ASIC to implement some logic function as evidenced by Barlow et al. (col. 20, lines 57 – 63), since ASIC devices are low cost and have low power consumption, and thus, such would have been obvious to employ in combination with the prior art.

\* \* \*

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Digital Tigers SideCar PlusTwo Pro Specification sheet (hereafter referred to as DT2) in view of Acharya et al. (U.S. 7,123,212), with evidence provided by Digital Tigers SideCar PlusFour Pro Installation and User Guide (hereafter referred to as DT4) and Merkin et al. (U.S. 6,584,561) and what was old and well known in the art.

Regarding claim 5, DT2 fails to explicitly teach wherein the graphics component comprises a graphics and memory controller hub. Examiner takes Official Notice that it is old and well known in this art for a computer system, such as a notebook computer, to contain a graphics and memory controller hub, as evidenced by Merkin et al. (col. 3, lines 38 – 42), and thus, such would have been obvious to employ in combination with the prior art.

Regarding claim 6, DT2 fails to explicitly teach wherein the graphics component comprises a graphics processor unit. Examiner takes Official Notice that it is old and well known in this art for a computer system, such as a notebook computer, to contain a graphics processor unit, as evidenced by Merkin et al. (col. 3, lines 38 – 42; Fig. 1, 130), and thus, such would have been obvious to employ in combination with the prior art.

\* \* \*

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Digital Tigers SideCar PlusTwo Pro Specification sheet (hereafter referred to as DT2) in view of Acharya et al. (U.S. 7,123,212), with evidence provided by Digital Tigers SideCar PlusFour Pro Installation and User Guide (hereafter referred to as DT4) and Merrill (U.S. Pub. 2002/0036694) and what was old and well known in the art.

Regarding claim 7, DT2 fails to explicitly teach a projector. Examiner takes Official Notice that it is old and well known in this art to use a projector with a DVI connector for the purposes of presenting display information. This is evidenced by Merrill (par. 116), and thus, such would have been obvious to employ in combination with the prior art.

\* \* \*

Claims 9 – 22 are directed to a method and a system with substantially similar limitations as in claims 1 – 8 above and are rejected under the same grounds.

#### **(10) Response to Argument**

Applicant has argued, with respect to claim 1, that none of the references disclose or suggest “a docking connector...operable to provide the DVI output at the housing to a docking station.” In response, the Examiner points to DT4 Installation/User Guide, page 16, which shows a PC card connector. This PC card connector is inserted into the notebook computer (shown on page 3 in the bottom Figure), and is connected by the PC Card Interface Cable (also shown on page 3 in the bottom Figure) to the docking station (the SideCar PlusTwo Unit shown in the bottom Figure on page 3). The

PC Card connector can be called a docking connector, because it provides a connection to a docking station. Thus, DT2 discloses the limitations as claimed.

The Examiner wishes to correct the Applicant in that it was **not** his position that the PC card was a **docking station**, but, as written in the Office Action, the PC card connector corresponds to a **docking connector**.

In response to Applicant's argument that this interpretation contradicts the commonly understood meaning of a docking station, the Examiner cites evidence to Nakamura (U.S. 6,606,678), which was cited in the Advisory Action mailed 10/22/2007. Nakamura teaches a notebook computer (Fig. 1, 100) which connects to a docking station (Fig. 1, 200) through a cable (Fig. 1, 300). This physical configuration is identical to the notebook and docking station of DT4, and thus, the Examiner finds his interpretation to be within the commonly understood meaning of a docking station in this art. Furthermore, the Examiner notes that a "docking station" is not recited as being a component of the invention of claim 1. The docking station is only cited as an intended use for the recited docking connector of claim 1. Claim 2 is where a docking station is explicitly claimed. Thus, DT2 renders the elements as claimed.

Regarding Applicant's argument that none of the references suggest first and second TMDS transmitters, the Examiner notes that some sort of data transmission device is inherent to each graphics output on the notebook computer. Otherwise, no graphics display output would be possible. DT2 fails to teach TMDS transmitters however. For this teaching, Acharya et al. is relied upon. Acharya et al. teach that TMDS transmission is well-known for use with flat panel displays, and allows fewer

wires to be used for image data lower power consumption, better protection against EMI, and higher transmission speeds (col. 12, line 59 – col. 13, line 5). Thus, DT2 in combination with Acharya et al. renders the limitations as claimed.

Regarding Applicant's argument that none of the references suggest a selector with "first and second selectable outputs," the Examiner refers to the bottom figure of page 3 of the DT4 reference. This figure shows a notebook computer having a first display (labeled as #1) and an external monitor output (connected to the Notebook external monitor cable), which is connected to display #2. These displays are selectable in conjunction with the Windows operating system. The details of this are shown on page 43 and 95 of the DT4 reference. Display #1 can be enabled (by setting it as a primary display, as shown on page 96) or disabled (by setting another monitor as the primary display). Display #2 can be enabled or disabled also through the Windows display software (page 43; see Checkbox "Extend my windows desktop onto this monitor"). Thus, the selector and selectable output functionality occurs using the combination of hardware and software of DT4. The Examiner disagrees that the DT reference focuses on simultaneous presentation from plural monitors. DT4 too, is concerned with selection between outputs, as shown in the Figure on page 43, as well as the Figures on pages 95 and 96. Thus, DT2 teaches all limitations of the claim.

Regarding Applicant's arguments with respect to claim 9, the Examiner first wishes to correct the Applicant in that claim 9 was examined, as described on line 2 of the Final Rejection ("Claims 1 - 22 have been examined.").

Claim 9 recites substantially similar limitations as in claim 1. The Applicant has argued that the references fail to suggest plural TMDS transmitters and teach away from selectively providing a DVO signal to one of a first and second TMDS transmitters. In response, the Examiner notes that Official Notice was taken in the Office Action mailed 3/27/2007 to the fact that a graphics component interfaced with processing components and operable to output display information as a DVO signal is old and well known in this art. Applicant did not traverse the Examiner's Official Notice, and thus, it is taken to be admitted prior art. As previously explained, each graphics output of the notebook computer of DT2 inherently requires a transmitter of some sort. DT2 does not expressly disclose a TMDS transmitter. The Examiner has cited Acharya et al. for making obvious this combination, as above. The selection control functionality, for selectively providing the graphics component's DVO signal to either of the two transmitters is controlled through the Windows software, as disclosed on page 43 of DT2, as well as pages 95 and 96. Thus, the combination of DT2 and Acharya et al. teach all limitations of claim 9.

Regarding Applicant's arguments with respect to claim 17, the Examiner again wishes to correct the Applicant in that claim 17 was examined, as described on line 2 of the Final Rejection ("Claims 1 - 22 have been examined."). Furthermore, claim 17 erroneously recites "the first TMDS selector" in line 9 and "the second TMDS selector" in line 11. For purposes of examination, the Examiner has assumed Applicant has

meant to claim “the first TMDS transmitter” and “the second TMDS transmitter” as to not create an antecedent basis problem.

Claim 17 recites substantially similar limitations as in claim 3. The Applicant has argued that the references fail to suggest “a selector output selector” that selects where to output a DVO signal based on whether or not an information handling system couples to a docking station. The Examiner notes that again, the selector functionality is controlled through the Windows software, as disclosed on pages 41 – 43 of the DT4 Installation/User guide. The Examiner points specifically to page 42, first bulleted paragraph which recites, “...the #3 and #4 monitors are the two monitors controlled by the SideCar PlusTwo Pro...” Additionally, the Examiner points to the 3rd bulleted paragraph which recites, “...If you see only one or two monitors, the SideCar PlusTwo Pro has not been fully recognized by your notebook computer...” These two passages clearly distinguish between having the ability to choose between **four** selectable monitor outputs when coupled to the docking station (SideCar PlusTwo Pro), and **two** selectable monitor outputs when not coupled/not initialized to the docking station.

The Applicant has argued that, “...no basis exists to suggest that the DT reference would select to send a DVO signal to a PC Card rather than a normal external monitor cable if the PC Card was inserted.” Here the Applicant has clearly misconstrued his/her claim language. Claim 17 makes no requirement that the system would select to send a DVO signal to a PC Card **rather** than a normal external monitor if the PC Card was inserted. Instead, it simply requires that the selector is operable to send the DVO signal to the first TMDS transmitter if not coupled to the docking station,

and also able to provide it to the second TMDS transmitter if coupled to the docking station. Claim 17 does not limit the DVO signal from being sent to the first TMDS transmitter when connected to the docking station. Thus, DT2 teaches all of the limitations as claimed in claim 17.

Regarding Applicant's arguments with respect to claim 21, the Examiner again wishes to correct the Applicant in that claim 21 was examined, as described on line 2 of the Final Rejection ("Claims 1 - 22 have been examined.").

The Applicant has argued that the DT reference cited by the Examiner cannot be modified to switch a TMDS output between two connectors because the PC Card used by the DT reference cannot accept or output a DVI signal. This allegation is completely contrary to the operation of the DT2 SideCar PlusTwo Pro system. The bottom Figure on page 3 of DT4 Installation/User Guide shows a notebook having a PC card with a cable that connects to the SideCar PlusTwo unit, which then connects to monitors #3 and #4. In order for monitors #3 and #4 to be operative, a DVI signal **must** be transmitted to them. Thus, the PC Card of DT2 **must** be capable of passing the DVI signal from the graphics component on the notebook, through the Notebook/SideCar PC Card interface cable, through the SideCar PlusTwo unit and into monitors #3 and #4. Again, as recited above, the selector functionality in DT2 is controlled through the Windows display settings software, which allows any of the monitors (#1, #2, #3, #4) to be activated or deactivated using a combination of the checkboxes labeled, "Use this



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device as the primary monitor" and "Extend my Windows desktop onto this monitor."

Thus, DT2 teaches all of the limitations of claim 21 as claimed.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/M. D. S./

Examiner, Art Unit 2111

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